Creating Revit Sections and Callouts with Detail Number, Sheet Number and Referencing Sheet Annotation

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Although not widely used in the United States, Revit’s section and callout bubbles can include a reference to the sheet that the view they are annotating is placed on (figure 1).

If your, or your client’s, standard is to show this you may have struggled with how to do it within Revit.

The process is not difficult but the necessary steps may be tricky. Revit already has the families with the desired geometry and annotation parameters created. The example that we will be using in this tutorial is the Annotation Family Section Head - Filled w Sheet-Ref Sheet.rfa (figure 2).
This family has a parameter for the Detail Number (figure 3), a parameter for the Referencing Sheet Number (figure 4), and a parameter for the Sheet Number (figure 5).

Unfortunately, you cannot simply load this family into a project and find it available in the type selector pull down (figure 6) when adding sections or callouts.

These annotation symbols in the project (.rvt) are Revit System families (figure 7) and cannot be saved in an external family file (.rfa).

If you right mouse click a section in a plan view, pick Element Properties, then Edit/New to get to the Type Properties, you will see that there are parameters under Graphics labeled Callout Tag and Section Tag (figure 8).
These have Values that can be changed. The things these Values are looking for are also System Families and these are able to be viewed and edited from the Settings pull down, View Tags (figure 9) fly out. Of the three options only Section Tags (figure 10) and Callout Tags (figure 11) can utilize a family that can be created and stored in an external family file and loaded into projects.

The Project Browser will also list the annotation families that have been loaded in the project (figure 12).
In other words you need to have an external family for the section head annotation, load it into a project, create a view tag family for it and select the loaded family as the Section Head parameter within this system family, then have a system family for the section and select the view tag family as its parameter for the section tag.

This does seem like a complex process but it does make some sense when you realize that the section or callouts you add are made of more than just parameters; they also have tails, radius on the callout boundaries, etc. Before we walk through the process it may be helpful to look at a Mind Map (figure 13) of the relationships which I have described far.
We will follow this procedure from the top of the diagram down.

First we will load the annotation family *Section Head - Filled w Sheet-Ref Sheet.rfa* (from the supplied Imperial Library) into our project.

Next we will go to the Settings pull down >View Tags > Section Tags. Instead of modifying the current type we will *Duplicate* it and give it a new name (I named mine *Section Head REF SHEET - Filled, Section Tail – Filled*). Then
under the *Section Head* parameter we will look for the Annotation family we loaded and select it *(figure 14)*

![Type Properties](image)

**figure 14**

Next we will start the Section tool select the type of Section we want to modify *(Building Section)* and before we draw the section in the view we will select *Element Properties*. We will hit *Edit/New*, then *Duplicate* to create a new type and name it *(I named mine *Building Section Ref Sheet)*. Then in the *Section Tag* Parameter pull down we will select the one we created in the previous step *(figure 15)*.

![Type Properties](image)

**figure 15**

To test it out, drag the section and the reference view onto some sheets. If there is more than one referencing view, it will only call out the
first one referenced onto a sheet. If this view is removed from a sheet and other referencing views are on other sheets the annotation will change to the next one placed.

This same procedural outline can be followed for the other type of section marks and callouts (figure 16). For the Detail View: Detail you will want to load the annotation family Section Head - Circle w Sheet-Ref Sheet.rfa. For the Floor Plan and other callouts you'll load the annotation family Callout Head w Sheet-Ref Sheet.rfa.

*figure 16*